

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-52 will be pending. By this amendment, claims 1, 25, and 49 have been amended; and claim 52 has been added. No new matter has been added.

§ 102 Rejection of Claims 1-3, 6, 9, 11, 25-27, 30, 33, 35, and 49

In Section 2 of the Office Action, claims 1-3, 6, 9, 11, 25-27, 30, 33, 35, and 49 stand rejected under 35 U.S.C. §102(b) as being anticipated by Trower *et al.* (U.S. Patent No. 5,983,190; hereinafter referred to as “Trower”).

In the Background section of the Specification, it was stated that “there is recently provided an interactive operation support system, which is set to allow a personified assistant to appear on a display screen, permitting the user to perform input of commands to the equipment in the form of carrying out a conversation face to face with an assistant on the screen.”

*Specification, page 3, lines 10-15.* “However, such a system making it possible to present the status conditions in progress related to such operations on the screen through an assistant has not been developed so far, and as a result, there is no other way other than the user having to wait for response from the system with one's eyes fixed on the screen. It is to be even supposed that if the user gives a command to the system to execute a processing requiring a response time, the user would even misunderstand that the equipment is out of order. ... Thus, it is preferable that, in order to allow the user to operate the equipment based on interaction with the assistant, an operationally easy input of a command system produces an effect close to natural language is provided.” *Specification, page 4, lines 11-23.*

To address the above-described shortcomings of the conventional interactive operation support system, embodiments of the present invention provide improved system and method for interactive operation support for an apparatus comprising a display unit, a speech input unit, a speech output unit, and an operation control unit. For example, the structure of system claim 1, as presented herein, states that the operation control unit includes:

- “*an assistant control means* for generating a personified assistant and making said assistant appear on a screen of said display unit;
- *an output speech control means* for determining speech required for said assistant to output said assistant's speech to the outside through said speech output unit after speech synthesis;
- *an input speech recognition means* for recognizing user's voice as a speech inputted through said speech input unit;
- *an interaction management means* for managing interaction between said assistant and said user according to said assistant's speech determined by said output speech control means and said user speech recognized by said input speech recognition means;
- *an ambient state generating means* for enabling said personified assistant to make motions in a proper way or to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state; and
- *a command interpreting means* for specifying a user's intention or specifying said inputted user command based on a content of interaction traced by said interaction management means.”

(emphasis added)

Thus, the operation control unit includes at least an ambient state generating means for enabling the personified assistant to make motions in a proper way or to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state. See *Specification, page 31, lines 24-28; page 36, lines 20-24; and page 40, lines 28-29.*

By contrast, Trower's system fails to include an ambient state generating means for enabling the personified assistant to make motions in a proper way or to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state.

Based on the foregoing discussion, it is submitted that claim 1 should be allowable over Trower. Since claims 25 and 49 closely parallel, and include substantially similar limitations as, claim 1, claims 25 and 49 should also be allowable over Trower. Further, since claims 2-3, 6, 9, 11, 26-27, 30, 33, and 35 depend from one of claims 1 and 25, claims 2-3, 6, 9, 11, 26-27, 30, 33, and 35 should also be allowable over Trower.

Accordingly, it is submitted that the rejection of claims 1-3, 6, 9, 11, 25-27, 30, 33, 35, and 49 based upon 35 U.S.C. §102(b) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48

In Section 4 of the Office Action, claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Houser *et al.* (U.S. Patent No. 5,774,859; hereinafter referred to as "Houser").

Based on the foregoing discussion regarding Trower and claims 1 and 25, and since claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 depend from one of claims 1 and 25, claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 should be allowable over Trower.

Further, it was stated that Houser includes “control means determines speech for leading a user’s interaction when said command interpreting means fails to specify said user’s intention or said inputted user command”. Thus, it is maintained that Trower and Houser, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 should be allowable over the combination of Trower and Houser.

Accordingly, it is submitted that the rejection of claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 7, 8, 20, 31, 32, and 44

In Section 5 of the Office Action, claims 7, 8, 20, 31, 32, and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Lumelsky *et al.* (U.S. Patent No. 6,081,780; hereinafter referred to as “Lumelsky”).

Based on the foregoing discussion regarding Trower and claims 1 and 25, and since claims 7, 8, 20, 31, 32, and 44 depend from one of claims 1 and 25, claims 7, 8, 20, 31, 32, and 44 should be allowable over Trower.

Further, it was stated that Lumelsky discloses “communication means for connecting said system to a communication medium such as external network and/or a telephone line, and a mail exchange means for making an exchange of electronic mails via said communication medium, wherein said output speech control means determines said assistant’s speech based on content of an incoming mail”. Thus, it is maintained that Trower and Lumelsky, in combination or

individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 7, 8, 20, 31, 32, and 44 should be allowable over the combination of Trower and Lumelsky.

Accordingly, it is submitted that the rejection of claims 7, 8, 20, 31, 32, and 44 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 10 and 34

In Section 6 of the Office Action, claims 10 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Crow *et al.* (U.S. Patent No. 6,262,724; hereinafter referred to as “Crow”).

Based on the foregoing discussion regarding Trower and claims 1 and 25, and since claims 10 and 34 depend from claims 1 and 25, respectively, claims 10 and 34 should be allowable over Trower.

Further, it was stated that Crow discloses “assistant control means places said personified assistant in a room scattered with various kinds of objects including a link to an information resource, and in response to an interest of said user in a recording medium including a link to a music content placed in said room”. Thus, it is maintained that Trower and Crow, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 10 and 34 should be allowable over the combination of Trower and Crow.

Accordingly, it is submitted that the rejection of claims 10 and 34 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 14, 16, 18, 38, 40, and 42

In Section 7 of the Office Action, claims 14, 16, 18, 38, 40, and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Houser, and further in view of Florin *et al.* (U.S. Patent No. 5,583,560; hereinafter referred to as “Florin”).

Based on the foregoing discussion regarding Trower and Houser, and claims 1 and 25, and since claims 14, 16, 18, 38, 40, and 42 depend from one of claims 1 and 25, claims 14, 16, 18, 38, 40, and 42 should be allowable over the combination of Trower and Houser.

Further, it was stated that Florin discloses a picture-in-picture window with the ability to jump to (zoom in on) the channel displayed in the window. Thus, it is maintained that Trower, Houser, and Florin, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 14, 16, 18, 38, 40, and 42 should be allowable over the combination of Trower, Houser, and Florin.

Accordingly, it is submitted that the rejection of claims 14, 16, 18, 38, 40, and 42 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 21, 45, 50, and 51

In Section 8 of the Office Action, claims 21, 45, 50, and 51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower.

Based on the foregoing discussion regarding Trower, and since claims 21, 45, 50, and 51 depend from one of claims 1 and 25, claims 21, 45, 50, and 51 should be allowable over Trower.

Accordingly, it is submitted that the rejection of claims 21, 45, 50, and 51 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Newly-added Claim 52

Based on the foregoing discussion regarding claim 1, and since claim 52 depends from claim 1, claim 52 should be allowable over the cited prior art references.

Conclusion

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-52 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

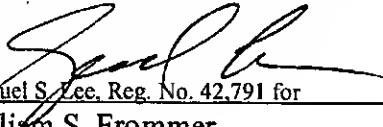
In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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